IN THE CLAIMS

Please amend the claims as follows:

Claims 1-3 (Canceled).

Claim 4 (Currently Amended):   A video signal coding method comprising the steps of:

determining a coding difficulty level d of an input video signal for each unit of time;

measuring visual characteristics of the input video signal;

determining a reference value for allocating coding bits on the basis of temporally b(d) for the amount of coding bits b allocated for each unit of time and related in advance to the coding difficulty level d of said input video signal for each unit of time;

determining an actual amount of allocated coding bits b_x on the basis of the reference value; and

generating coded data by coding the input video signal for each unit of time on the basis of said actual amount of allocated coding bits b_x, wherein part of the sum B_av of the amounts of allocated bits b_av per unit time for a certain period of time T_vbr, or

$$\text{B\_av = b\_av T\_vbr} \quad \underline{B\_av = b\_av \times T\_vbr,}$$

is stored as virtual buffer V_vbr in advance and the actual reference value of the amount of allocated coding bits b_real is obtained by

$$b\_real = (B\_av - V\_vbr) / T\_vbr$$

so that an amount of allocated bits not smaller than b_real is given as long as $V\_vbr > 0$ but an amount smaller than b_real is given otherwise in said step of determining the actual amount of allocated coding bits on the basis of said reference value.

Claim 5 (Original): The video signal coding method according to claim 4, wherein an upper limit is provided in advance according to the amount of allocated bits b_av when giving an amount of allocated bits exceeding said b_real.

Claim 6 (Original): The video signal coding method according to claim 4, wherein a lower limit is provided in advance according to the amount of allocated bits b_av when giving an amount of allocated bits smaller than said b_real.

Claim 7 (Original): The video signal coding method according to claim 4, wherein the upper limit is provided according to a proportion of scenes that are conspicuously degraded as a result of coding by taking the visual characteristics of the input image into consideration when giving an amount of allocated bits smaller than said b_real.

Claim 8 (Original): The video signal coding method according to claim 4, wherein, when the difference between the sum of the amounts of actually generated bits B_gen in the period of time and the sum of the amounts of available bits B_av in the period of time (B_av - B_gen) is positive when the coding operation in said period of time T_vbr is over, the difference is carried over and added to the sum of the amounts of available bits in the next period of time.

Claim 9 (Original): The video signal coding method according to claim 4, wherein, when the sum of the amounts of available bits exceeds R_total times of the initial sum B_av as a result of carrying over the difference, the reference value of the actually allocated bits per unit time b_real is raised according to the ratio.

Claims 10-11 (Canceled).

Claim 12 ((Previously Presented): A video signal encoder comprising:

a means for determining a coding difficulty level d of an input video signal for each unit of time;

a means for measuring visual characteristics of the input video signal;

a means for determining a reference value for allocating coding bits on the basis of temporally b(d) for the amount of coding bits b allocated for each unit of time and related in advance to the coding difficulty level d of said input video signal for each unit of time;

a means for determining an actual amount of allocated coding bits b_x on the basis of the reference value; and

a means for generating coded data by coding the input video signal for each unit of time on the basis of said actual amount of allocated coding bits b_x, wherein said means for determining the actual amount coding bits on the basis of the reference value controls the actual amount of allocated bits in such a way that the sum of the generated bits obtained when coding the input video signal for a certain period of time T_vbr does not exceed the amount of bits available for recording a signal having the length of the period of time T_vbr on a recording medium.

Claim 13 (Currently Amended): A video signal encoder comprising:

a means for determining a coding difficulty level d of an input video signal for each unit of time;

a means for measuring visual characteristics of the input video signal;

a means for determining a reference value for allocating coding bits on the basis of temporally b(d) for the amount of coding bits b allocated for each unit of time and related in advance to the coding difficulty level d of said input video signal for each unit of time;

a means for determining an actual amount of allocated coding bits b_x on the basis of the reference value; and

a means for generating coded data by coding the input video signal for each unit of time on the basis of said actual amount of allocated coding bits b_x, wherein part of the sum B_av of the amounts of allocated bits b_av per unit time for a certain period of time T_vbr, or

$$\text{B\_av} = \text{b\_av} \; \text{T\_vbr} \quad \underline{\text{B\_av} = \text{b\_av} \times \text{T\_vbr}},$$

is stored as virtual buffer V_vbr in advance and the actual reference value of the amount of allocated coding bits b_real is obtained by

$$\text{b\_real} = (\text{B\_av} - \text{V\_vbr}) \, / \, \text{T\_vbr}$$

so that an amount of allocated bits not smaller than b_real is given as long as V_vbr > 0 but an amount smaller than b_real is given otherwise in said step of determining the actual amount of allocated coding bits on the basis of said reference value.

Claim 14 (Original): The video signal encoder according to claim 13, wherein an upper limit is provided in advance according to the amount of allocated bits b_av when giving an amount of allocated bits exceeding said b_real.

Claim 15 (Original): The video signal encoder according to claim 13, wherein a lower limit is provided in advance according to the amount of allocated bits b_av when giving an amount of allocated bits smaller than said b_real.

Claim 16 (Original): The video signal encoder according to claim 13, wherein the lower limit is determined as according to a proportion of scenes that are conspicuously degraded as a result of coding by taking the visual characteristics of the input image into consideration when giving an amount of allocated bits smaller than said b_real.

Claim 17 (Original): The video signal encoder according to claim 13, wherein, when the difference between the sum of the amounts of actually generated bits B_gen in the period of time and the sum of the amounts of available bits B_av in the period of time (B_av - B_gen) is positive when the coding operation in said period of time T_vbr is over, the difference is carried over and added to the sum of the amounts of available bits in the next period of time.

Claim 18 (Original): The video signal encoder according to claim 13, wherein, when the sum of the amounts of available bits exceeds R_total times of the initial sum B_av as a result of carrying over the difference, the reference value of the actually allocated bits per unit time b_real is raised according to the ratio.

Claim 19 (Previously Presented): A video signal coding method comprising the steps of:

utilizing a virtual buffer;

allocating an amount of information greater than b_real to an image showing a relatively high coding difficulty level, where b_real is obtained by

b_real = (B_av) x (R_vbr); and

controlling a bit rate based on an amount of residue, where the amount of residual is obtained by

$$(b\_real - b\_av)x(T\_vbr);$$

wherein an amount of information smaller than b_real is allocated to an image showing a relatively low coding difficulty level.